WHAT IS CLAIMED IS:

1. (Original) A disc cartridge comprising:

a cartridge body including a disc storage portion having a disc window and a bottom and storing a disc with first and second sides in a rotatable state so that the first side is exposed through the disc window, a chucking opening provided on the bottom of the disc storage portion so as to get the disc chucked externally and a head opening provided on the bottom of the disc storage portion so as to allow a signal read/write head to access the second side of the disc;

a first shutter and a second shutter, which are provided on the bottom of the disc storage portion so as to expose or cover the head opening; and

a rotational member supported over, and engaging with, the first and second shutters in the disc storage portion so as to open or close the first and second shutters when rotating in the disc storage portion,

wherein the rotational member includes a disc receiving portion with a contact region that contacts with, and receives, the outer edge of the second side of the disc while the first and second shutters are closed and a groove provided outside of the contact region.

2. (Original) The disc cartridge of claim 1, wherein the rotational member has a notch, which is provided for the disc receiving portion so as to be located within the head opening while the first and second shutters are opened, and

wherein the disc storage portion includes a sidewall along an outer periphery of the bottom, and

wherein each of the first and second shutters includes a disc holding portion for holding the disc thereon with the center of the disc offset from the center of the disc storage portion such that an outer side surface of the disc contacts with the sidewall of the disc storage portion at a position where the notch of the rotational member is located while the first and second shutters are closed.

3. (Original) The disc cartridge of claim 2, wherein the groove of the disc receiving portion is exposed in the disc storage portion while the first and second shutters are closed.

4. (Original) The disc cartridge of claim 1, wherein the rotational member includes a plurality of filling portions, which are provided so as to fill in parts of the groove.

5. (Original) The disc cartridge of claim 4, wherein each said filling portion has a circumferential length of at least 1 mm.

6. (Original) The disc cartridge of claim 5, wherein the upper surface of each said filling portion is tilted toward the center of the disc window.

7. (Original) The disc cartridge of claim 1, further comprising:

a first disc holding portion and a second disc holding portion, which are provided as portions of the first and second shutters, respectively, so as to fix the disc onto either the first and second shutters or the cartridge body as the first and second shutters are going to be opened or closed and while the shutters cover the chucking and head openings; and

a stopper member, which protrudes toward the disc window,

wherein while the first and second shutters are closed, the first disc holding portion contacts with the disc in the vicinity of the stopper member before the second disc holding portion contacts with the disc.

8. (Original) The disc cartridge of claim 7, wherein while the first and second shutters are closed, at least part of the first disc holding portion is located under the stopper member so as to contact with the disc.

9. (Original) The disc cartridge of claim 8, wherein each of the first and second disc holding portions has a downwardly tapered slope, grips and fixes the disc thereon by bringing the slope into contact with an outer edge of the disc, and holds the disc thereon by pressing the disc against the bottom of the disc storage portion.

10. (Original) The disc cartridge of claim 9, wherein the first disc holding portion has a structure for changing the tilt and position of the disc in the disc storage portion so as to contact with the disc in the vicinity of the stopper member and then allow the second disc holding portion to contact with, and grip, the disc.

11. (Original) The disc cartridge of claim 10, wherein the tilt and position changing structure of the first disc holding portion has a first regulating surface, which is provided so as to define a downwardly tapered slope that is not parallel to the direction in which the first disc holding portion moves as the first and second shutters are going to be closed, and a second regulating surface, which is provided parallel to the first or second shutter.

12. (Original) The disc cartridge of claim 1, wherein the cartridge body includes a rotational member receiving portion for holding the rotational member by contacting with a portion of the bottom of the rotational member while the first and second shutters are opened.

13. (Original) The disc cartridge of claim 12, wherein the rotational member receiving portion has a slope, which is provided near the head opening so as to face the disc window, and wherein while the first and second shutters are opened, the outer edge of the bottom of the rotational member partially contacts with the slope.

14. (Original) The disc cartridge of claim 12, wherein the rotational member includes a first protrusion and a second protrusion, which protrude toward the bottom of the disc storage portion, the first and second shutters include a first guide groove and a second guide groove, which respectively engage with the first and second protrusions of the rotational member, and at least one of the first and second protrusions has a claw portion at the top so as not to disengage itself from its associated guide groove.

15. (Original) The disc cartridge of claim 12, wherein the first and second shutters include:

notches, which are provided so as to define a hole under the center hole of the disc while the first and second shutters are closed;

a first convex portion and a second convex portion, which are provided around the notches; and

a first protrusion, a second protrusion and a third protrusion, which are provided on the first and second convex portions so as to protrude into the center hole of the disc while the first and second shutters are closed.

16. (Original) The disc cartridge of claim 12, wherein the rotational member includes: a disc receiving portion, which is provided so as to receive the outer edge of the second side of the disc; and

a notch, which is provided for the disc receiving portion so as to be located within the head opening while the first and second shutters are opened, and

wherein the cartridge body includes a concave portion on the bottom of the disc storage portion in a region where the notch of the rotational member passes and the disc receiving portion overlaps with the first or second shutter as the first and second shutters are going to be opened.

17. (Original) The disc cartridge of claim 12, wherein the cartridge body includes a first convex portion and a second convex portion in the vicinity of the head opening, and

wherein one of the first and second shutters and the rotational member include a first convex portion and a second convex portion, which respectively contact with the first and second convex portions of the cartridge body while the first and second shutters are closed.

18. (Original) The disc cartridge of claim 1, further comprising a stopper member, which is fixed on the upper surface of the cartridge body so as to partially protrude into the disc window,

wherein the stopper member includes at least one positioning pin and at least one engaging pin with a first engaging portion, and

wherein the cartridge body has: at least one positioning hole, which extends in a first direction from the cartridge upper shell toward the lower shell and which holds the positioning pin so as to prevent the positioning pin from moving perpendicularly to the first direction; and at least one engaging hole, which also extends in the first direction and which includes a second engaging portion that engages with the first engaging portion so as to prevent the first engaging portion from moving in the first direction.

19. (Original) The disc cartridge of claim 18, wherein the at least one positioning pin and the at least one engaging pin of the stopper member include two positioning pins and two engaging pins, respectively, and wherein the at least one positioning hole and the at least one engaging hole of the cartridge body include two positioning holes and two engaging holes, respectively.

20. (Original) The disc cartridge of claim 1, wherein the rotational member includes: a disc receiving portion that contacts with, and receives, the outer edge of the second side of the disc while the first and second shutters are closed; and a notch, which is provided for the disc receiving portion so as to be located within the head opening while the first and second shutters are opened, and

wherein the disc storage portion includes a sidewall along an outer periphery of the bottom, and

wherein each of the first and second shutters includes a disc holding portion for holding the disc thereon with the center of the disc offset from the center of the disc storage portion such that an outer side surface of the disc contacts with the sidewall of the disc storage portion at a position where the notch of the rotational member is located while the first and second shutters are closed, and

wherein each of the first and second disc holding portions includes: a first slope and a second slope, which are arranged perpendicularly to the bottom of the disc storage portion and are tilted so as to face the bottom; and a horizontal plane, which extends substantially parallel to the bottom between the first and second slopes.

21. (Original) The disc cartridge of claim 1, wherein the rotational member includes: a disc receiving portion that contacts with, and receives, the outer edge of the second side of the disc while the first and second shutters are closed; a sidewall, which surrounds the outer edge of the disc receiving portion; and a notch, which is provided for the disc receiving portion and a portion of the sidewall so as to be located within the head opening while the first and second shutters are opened, the sidewall portion with the notch expanding outward from the other portions, and

wherein the cartridge body includes a supporting portion, which supports the sidewall portion with the notch while the shutters are opened, in the vicinity of the head opening.

22. (Original) The disc cartridge of claim 1, wherein the rotational member includes a disc receiving portion with a contact region, which contacts with, and receives, the outer edge of the second side of the disc while the first and second shutters are closed and which is parallel to the bottom of the disc storage portion, and a non-contact region, which is provided inside of the contact region so as not to contact with the disc, and

wherein the non-contact region of the rotational member and surfaces of the first and second shutters that are opposed to the disc are textured.

23. (Original) The disc cartridge of claim 1, wherein the cartridge body includes a convex portion around the chucking and head openings on the bottom, and

wherein the first and second shutters include a first convex portion and a second convex portion, which sandwich the convex portion of the cartridge body while the shutters are closed, on the surface opposed to the bottom.

24. (Original) The disc cartridge of claim 23, wherein the first and second shutters rotate around a rotation axis that is defined somewhere but the center of rotation of the rotational member, and wherein the first and second shutters further include a third convex portion, which is as high as the first and second convex portions and which extends in an arc of which the center is defined by the rotation axis, on the surface opposed to the bottom.

25. (Currently Amended) A disc drive to be loaded with the disc cartridge of ~~one of claims 1 to 24~~ claim 1 and reading and/or writing information from/on a disc stored in the disc cartridge.

26. (Original) A disc drive comprising:

driving means for rotating a disc;

a head for reading and/or writing information from/on the disc;

a supporting structure for supporting the disc cartridge of claim 2, in which the disc is stored, at a predetermined position with respect to the driving means; and

a shutter opening/closing mechanism for opening the shutters of the disc cartridge and making the disc holding portions of the disc cartridge release the disc so as to allow the disc to rotate in the disc storage portion of the disc cartridge.

27. (Original) The disc drive of claim 26, further comprising a clamper for fixing the disc onto the driving means.

28. (Original) The disc drive of claim 27, wherein the supporting structure includes a positioning pin that determines the position of the disc cartridge.

29. (Original) A method for fabricating a disc cartridge, which includes a cartridge body including a disc storage portion having a disc window and a bottom and storing a disc with first and second sides in a rotatable state so that the first side is exposed through the disc window, the method comprising the steps of:

arranging first and second shutters for exposing or covering a head opening on a cartridge lower shell that includes a chucking opening and the head opening on the bottom thereof so as to get the disc chucked externally and to allow a signal read/write head to access the disc, respectively, and

providing a rotational member for driving the first and second shutters on the first and second shutters;

bonding a cartridge upper shell, including the disc window, with the cartridge lower shell, thereby making up the cartridge body;

inserting the disc through the disc window into the cartridge body; and

fixing a stopper member onto the upper surface of the cartridge body such that the stopper member partially protrudes into the disc window.

30. (Original) The method of claim 29, wherein the step of bonding the cartridge upper shell with the cartridge lower shell includes the step of performing an ultrasonic welding process.

31. (Original) The method of claim 30, wherein the cartridge upper and lower shells are made of an ABS resin and the rotational member and first and second shutters are made of a polyacetal resin.